

ABSTRACT

Among other things, the present invention provides optical attenuators and modulators, especially variable optical attenuators and modulators, and materials and methods for their fabrication. In particular, the invention provides optical attenuators
5 and modulators that preferably are comprised of a second-order nonlinear optical polymer. Desirably the attenuators and modulators comprise at least one grating, and even more preferably, comprise at least two gratings. Optimally any such grating is contained within a waveguide layer.